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Mongolia

Privatization and System Transformation in An Isolated Economy

Cevdet Denizer
and
Alan Gelb

Mongolia initiated an innovative reform program in the face of severely growing shortages and a colllapsing economy. The latter may hasten reform. But collapse can also create serious difficulties, including rejection of radical reforms by the electorate.

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This paper — a product of the Transition and Macro-Adjustment Division, Country Economics Department — is part of a larger effort in the department to compare and evaluate country experiences with systemic transformation toward private market economies. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Aludia Oropesa, room N11-035, extension 39075 (December 1992, 44 pages).

Denizer and Gelb examine the process of economic transformation in Mongolia, a huge, isolated, sparsely populated country. After identifying factors that led to formulation of a radical adjustment program in such an isolated country, they focus on Mongolia's innovative voucher privatization scheme, and the interplay between the speed of contraction in resource availability and that of the movement to a market economy. They show that the reform process was not smooth: that after the rapid formulation and implementation of major reforms, there was a marked slowdown, when reform timetables were revised and a more gradualist approach adopted. Later, reforms driven by the privatization program picked up momentum again. But one important lesson learned in Mongolia is that voters are likely to shy away from radical reformers when faced with growing shortages and a collapsing economy. In June 1922, the Mongolian People's Revolutionary Party (the former communist party) was returned to power in general elections, capturing 72 of 76 parliamentary seats.

Denizer and Gelb identify factors related to speed versus caution: organizational and institutional limitations; political considerations; whether a "model" of transformation exists; and a contracting resource envelope.

Using a simple computable general equilibrium model, they analyze the impact of the cutoff of Soviet aid, which amounted to 30 percent of GDP, and of the disruption of trade. They conclude that preventing a decline in welfare of more than 20 percent — which is close to the decline in 1991 — would require aid flows of about 15 percent of GDP.

Their model suggests that the rural sector is reasonably well insulated from external shocks, in sharp contrast with the urban sector.

One response scenario explored by the model is that of massive reverse migration to rural areas. They point out that the more the resource envelope tightens and squeezes away the margin above subsistence, the harder it will be to sustain an orderly pattern of reform. In the extreme, this pattern may force the country to adopt a rationed "wartime" economy, despite intentions to shift to a market system.

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MONGOLIA

PRIVATIZATION AND SYSTEM TRANSFORMATION

IN

AN ISOLATED ECONOMY

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MONGOLIA: PRIVATIZATION AND SYSTEM TRANSFORMATION IN AN ISOLATED ECONOMY[1/]

I. Introduction

Largely unnoticed by the West, Mongolia began to move away from Soviet domination and a centrally planned economy with the first stirring of Glasnost. Though still within the context of central planning, economic decentralization began as early as 1984, but by 1990 the country was on the way to implementing a radical transformation program which aimed to create a market economy. Such a program, like those in Eastern Europe after 1990, would need to address the entire spectrum of economic reform, including price and trade liberalization, rapid privatization, and a fundamental change in the economic role of the state. Mongolia's program aimed at all these areas, in particular privatization where an innovative voucher scheme was initiated before any country in Eastern Europe. Moreover, the program was initiated under exceptionally difficult conditions, due to the withdrawal of Soviet aid and serious disruption of trading links within COMECON.

How could one of the most isolated countries in the world - certainly geographically, and possibly also in terms of trade and intellectual interactions outside the Soviet bloc - propose so radical a transformation?[2/] Which factors encouraged the "big bang" reform strategy, and which hindered it? Was this actually implemented? Or have the radical steps to the market been slowed down? These are some of the questions discussed in this paper, which outlines Mongolia's economic transformation program and reports progress to date.

Sections II, III and IV summarize the program in four phases:

1/ We are indebted to Peter Murrell for extensive and extremely useful comments and explanations, and to Mr. Zolzharghal for assisting us with information on recent developments in Mongolia's reform. Mete Durdag, Ms. Hulan and Vedat Milor provided useful comments. All errors and omissions are the responsibility of the authors alone.

2/ Other intellectually isolated socialist countries include Albania and North Korea, neither of which has produced a reform program comparable to that of Mongolia. It is difficult to find a comparator for physical isolation.

the cautious initial reforms after 1985; the rapid formulation of a radical transformation program, July 1990 - October 1991; an apparent slowdown in implementation and a new, extended timetable for privatization: November 1991 - February 1992; and the subsequent beginning of large scale privatization and apparent regaining of reform momentum. Section V considers factors making for speed versus caution in the reform process, and their possible weight in the Mongolian case. An important element of Section V is the assessment of the adverse impact of the Soviet aid and trade shock using a simple computable general equilibrium (CGE) model outlined in the Annex, and the interplay between the speed of contraction and that of movement to a market economy.

Before proceeding, two points should be made. First, this paper does not attempt to judge the reform proposals and their execution, nor to predict their future course. Second, policy announcements in Mongolia have sometimes been contradictory and the data base is limited.[3/] There is therefore room for considerable differences of interpretation of the actual, as well as the intended, evolution of both policies and outcomes.

II. Mongolia and Its Early Reforms

At half the size of India Mongolia is large but sparsely populated with only 2.1 million people. High and landlocked between the former USSR and China, its climate is unusually severe, with temperatures below freezing from October to March. Because of this, animal husbandry has traditionally been very important to Mongolian economy and culture. With a national livestock of 26 million and abundant grazing land, extensive animal husbandry remains the base for its light industry (mostly processing), and for agricultural exports. Climactic factors limit large scale crop cultivation. However, Mongolia has significant and largely unutilized natural resources - minerals, nonferrous metals including gold and silver, hydrocarbons and semiprecious stones. It also has abundant reserves of coal and copper. Mining is a major export industry.

3/ For examples of contradictory policies, see Murrell, Korsun and Dunn (1992).

With vast territory, low population density and inadequate infrastructure, markets remain thin and fragmented, and it is difficult to realize economies of scale in production.

After its establishment in 1924, Mongolia became the unofficial "sixteenth" Soviet republic. It remained internationally isolated and its close relationship with the Soviet Union and ties to other CMEA countries shaped its development framework towards centrally planning. Gradually Mongolia became integrated with and dependent upon the Soviet and the CMEA economies. From the mid 1950s, the Soviet Union and other CMEA countries provided large-scale financial assistance; during the second half of the 1980s the flow of foreign resources in the form of grants and loans accounted for 30 percent of Mongolia's GDP per year. The other part of this dependence was increasing trade volume with the CMEA countries. By the 1980s about 97 percent of trade took place with these countries. The Soviet Union accounted for 95 percent of the total trade volume, supplied Mongolia with all of its petroleum, energy, capital and consumer goods, and received in return copper concentrate, wool, leather and meat.

Some dimensions of Mongolia's structural dependence are shown in Table 1. The massive resource deficit of almost 30% of GDP, funded by low-cost Soviet loans, mainly covered the fiscal deficit. Government spending equalled 65% of GDP with current spending half of GDP, largely to sustain living standards at an acceptable minimum and support its well-developed social consumption system. Mongolia's exports were heavily concentrated, with minerals and raw materials (notably cashmere, leather and wool) accounting for 70% of the total. Only 5% of exports or 1% of GDP, almost all raw materials, went to non-socialist countries although these supplied one third of imports. Except in the self-sufficient pastoral economy, Mongolia's imports played a critical role, supplying fuels, intermediate and capital goods, spare parts and consumer goods including urban foodstuffs.

Particularly after 1960, central planning transformed Mongolia's socioeconomic structure and contributed to the technological dualization of the economy. Prior to 1921, Mongolia was a simple agrarian economy with the majority

Table 1

Mongolia: Structural Indicators

	Percentage of GDP	
	1988	1990
Exports	26	23
Imports	54	50
Resource Balance	-28	-27
Fiscal Revenues	45	51
Government Exp.	65	64
(Current Exp.	50	52)
(Subs.& Transfers	18	20)
Fiscal Balance	-20	-13
(Pct.For.financed	100	78)
Total Absorption	128	127
Investment	42	20
Private Consumption	62	75
Public Consumption	24	22

Trade Structure	
Percentage of Exports 1988	
Minerals	40
Raw Materials	30
Exports to Non-Socialist Countries 1988	
Percent of Total exports	5
Share of Raw Materials	94
Imports from Non-Socialist Countries 1988	
Percent of total imports	33

Balance of Payments

$millions

	1988	1990	1991
Exports	829	468	432
Imports	1849	1047	564
Current Acct.	-1033	-644	-100

CMEA Dependence: Mongolia and Eastern Europe

	Export Share to CMEA (%)	Non-CMEA Exports/ GDP (%)	Direct Loss from CMEA Shock/ GDP (%)
Mongolia	95	1	30*
Bulgaria	70	15	12
CSFR	50	15	7
Hungary	40	22	6
Poland	40	12	5

* Aid shock only

of the population living as nomadic herdsmen. These still represent most of the 44 percent of the population living in rural areas. However, buttressed by Soviet aid and mining revenues, industrial investment grew in the 1970s and most of the 1980s, superimposing a modern urban economy onto the traditional one. Spearheaded by industry, GDP grew at an average rate of 5.5 percent between 1970 and 1990, attracting Mongolians to urban areas. By the end of the 1980s, 56 percent of the population was living in the three main cities, mainly employed as civil servants (about 212,000 in 1991) and by industry (167,000). Great achievements were made in the social sectors. Mongolia achieved a 97 percent rate of literacy, and a well developed educational infrastructure. Its health system was effective, with more doctors per head than the USA and adequate access to medical services. The crude death rate fell from 22 per thousand in 1940 to 8.4 by 1989. As in Eastern Europe, social welfare was protected by an extensive system of subsidies and transfers. By the end of the period, pensions and allowances were received by some 800,000 persons out of its 2 million population. Sharp social dualism was therefore largely avoided, and living standards were broadly comparable in town and countryside.

In the second half of the 1980s Mongolia's growth performance started to experience difficulties. GDP growth slowed to 4.6 percent between 1987-89 from 7 percent during the 1981-86 period, and there were increasingly shortages of consumer goods. Slowdown was partly due to the economic malaise affecting CMEA partners and partly due to the inadequacy of domestic resources to sustain growth. Dissatisfaction with central planning grew, and culminated in the removal of Tsedenbahl (Mongolia's leader during much of the period) in August 1984, an event that marked the beginning of economic and political reform. Influenced by the political changes in the Soviet Union and with nationalism resurgent (as in the former Soviet republics), Mongolia launched its own program of political openness and economic restructuring. The reforms implemented between 1984 and 1989 included: streamlining government agencies, reducing subsidies and decentralizing to reduce expenditures and improve public finance,

and giving financial autonomy to public enterprises which resulted in a trend to self-management[4/].

However, these reforms, summarized in Table 2, were cautious ones that aimed to increase the efficiency of the command economy. The government that took office in December 1984 "revised" the eighth five year plan, so that reforms still took place in a planned context. Perhaps because the measures were not structural ones, they did not improve public finances. Deficits increased throughout the 1980s, and public expenditures still accounted for more than 60 percent of GDP. About 80 percent of spending was current, and half of this consisted of subsidies and transfers. Overall budgetary deficits jumped from 6.9 of GDP in 1985 to 17.7 in 1986 and to 19.5 in 1988. They were entirely financed by the USSR and provided the main driving force for growth in 1986-89.

Mongolia's dependence on the USSR and susceptibility to external shocks therefore increased. In 1989 the effects of Soviet economic difficulties began to be felt. Soviet financial assistance to cover the budget deficit halved in 1988-1990, a loss equivalent to 15 percent of Mongolia's GDP, and the CMEA trading system began to crumble. The contractionary effects of these shocks began to be felt by the economy. Output declined by 2.1 percent in 1990 and there were sharp increases in unemployment and inflation, both entirely new phenomena in Mongolia.

III The Formulation of a Big Bang

Increasing economic difficulties, shortages of consumer goods, rising prices and visible unemployment led, despite more reforms in January, to popular demonstrations in March 1990. These resulted in a comprehensive program of economic transformation being proposed by the ruling communists and the first multiparty election in July. A coalition government, still dominated by the Mongolian People's Revolutionary Party (MPRP), was formed in September but some of the most important positions, including that of deputy prime minister

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4/ A similar movement towards self-management took place in Eastern Europe and the USSR as enterprises received more autonomy.

Table 2

ECONOMIC AND STRUCTURAL REFORMS

1986

- Increase in domestic wholesale prices.
- Limited autonomy granted to public sector enterprises for investment.
- Introduction of long-term bank loans for investment

1987

- Modification of investment planning system for setting overall targets.
- Expansion of investment autonomy of public sector enterprises.
- Rationalization of number of government ministries.

1988

- Reduction in five-year plan performance indices.
- Further decentralization of budgetary operations to local level.
- Limited liberalization of agricultural pricing and marketing in excess of state orders.
- Promotion of private sector cooperatives under new Law on Cooperatives.
- Introduction of more depreciated noncommercial tugrik/US dollar exchange rate.

1989

- Liberalization of intrapublic-sector enterprises pricing and expansion of operating autonomy.
- Modest easing of restrictions on private herd ownership.
- Elimination of monopoly of state trading corporations.
- Increase in selected administered retail prices.
- Easing of foreign exchange surrender requirements.
- Introduction of preferential domestic prices for exported goods.

1990

- Elimination of restrictions on private ownership of herds.
- Freeing of selected retail prices.
- Legalization of two-tiered banking system and establishment of two commercial banks.
- Rationalization of government ministries; elimination of State Planning Committee.

1990 (cont.)

- Establishment of Customs Affairs Department and Tax Service Department.
- Promulgation of new Foreign Investment Law.
- Devaluation of tugrik vis-a-vis US dollar for commercial transactions.
- Introduction of restricted foreign exchange auction system.
- Negotiation of most-favored-nation trade agreements with countries in the convertible currency area.

1991

- Increase in retail prices of most goods.
- Lengthened maturity structure of term deposits and increased interest rates.
- Substantial reduction of budgetary subsidy for imported goods and to loss-making enterprises.
- Devaluation of tugrik vis-a-vis US dollar to Tug 40 = $1.
- Adjustments to wages, pension benefits, and private savings deposits to soften impact of price increase.
- Privatization Law passed and program for small privatization initiated.
- Banking Law passed, and Bank of Mongolia established as the central bank. Separate commercial banks established.
- Direct export rights granted to selected manufacturers.

1992

- Further liberalization of prices (except for public services, utility tariffs, public housing rents, selected medicines, flour, bread, and rationed vodka).
- Eliminated mandatory state orders for exports.
- Passed Bankruptcy Law
- Partial liberalization of issue of foreign trading licenses.
- Introduced weekly monitoring of budgetary revenues and expenditures.
- Established a stock exchange.
- Simplified interbank clearing and payments arrangements.
- Assigned responsibility for transportation policy to a single coordinating authority, General Department of Transportation.
- Start of large scale privatization.
- Completion of small-scale privatization.

with responsibility for privatization, were held by other more reformist parties. A new president was installed. Reform measures announced between January 1990 and July 1991 included a doubling of almost all prices, subsidy cuts, devaluation, privatization measures, banking reform including the creation of a new central bank, tax reforms, the elimination of all restrictions on private ownership of herds, and fundamental legal reforms. Meanwhile, with major changes taking place in traditional relationships with other CMEA countries, Mongolia agreed to value trade and effect settlement in convertable currencies from the beginning of 1991.

Prices and Markets. Price liberalization was formally extended to cover 60 percent of products and administered prices were increased by about 100%.[5/] Nevertheless, the official distribution system still dominated trade, and the shrinking pool of foreign exchange was still tightly controlled. Imports were therefore de facto rationed, and the result was to squeeze the margin of goods available on parallel markets, and slow the emergence of the small-scale private trading sector which was unable to obtain goods. Wages and savings deposits were also doubled, to offset price increases. As a result, the ratio of prices on parallel markets to official prices still averaged about 2 to 1, much the same after the price reform as before. With devaluation of the Tugrik to 40 per dollar, domestic prices for many goods and services were still low by world standards. Low domestic prices were maintained through the continued application of trade controls through the dominant public distribution and marketing system, to head off adverse social consequences of further sharp price hikes.

Price and market liberalization was therefore quite incomplete, and there was little movement towards current convertibility. In this area, Mongolia's actual reforms fell short of its rhetoric, and were less comprehensive than those of Eastern Europe.[6/]

5/ It is understood that this refers to 60% of prices rather than 60% of the value of marketed output.

6/ For an account of the seemingly contradictory regulation of prices (including phases of apparent re-regulation) see Murrell et. al (1992).

Another distinctive feature of Mongolia's reforms was the introduction of consumer rationing in January 1991. Half of the rationed items, including sugar, rice and flour, involved imports. At 2.7 kilograms per person per month, meat rations covered about one third of previous consumption levels.

Private Sector Development As in Eastern Europe and the USSR Mongolia had seen some emergence of private activities and some spontaneous privatization of state assets.[7/] With the removal of formal discrimination against private activities in 1988, private sector development accelerated. The number of private cooperatives grew from 180 in 1988 to nearly 3,000 in 1990, and these employed well over 20,000. Other private firms also began to appear. By 1990 their number reached 4,200 and they reportedly employed about 32,000. These firms were mostly in services and light manufacturing for the domestic market. Including an additional 4,000 self-employed, some 56,000 people out of total employment of about 965,000 therefore worked in new private sector activities by 1990.

The main barrier to greater private activity was the almost total lack of access to goods and foreign exchange due to the combination of a continued state distribution system and the shrinking economywide resource envelope. This hindered the private accumulation of capital through trading. Indeed, private firms sought to be included in the state distribution system and were, with a quota of 10% of trade being reserved for private businesses.[8/]

Privatization The most striking announcement in 1991 was the privatization program, extremely ambitious in terms of both number of enterprises and initial timetable. 344 large enterprises and 1601 small enterprises were to be privatized by the end of 1992, through free distribution of share vouchers to every citizen born prior to the approval of the Privatization Law. The program

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7/ For an account of spontaneous privatization in the USSR, see Shatalov (1991). Gelb and Gray (1990) discuss spontaneous privatization in Eastern Europe.

8/ As of October 1992 private firms were still included in the state distribution system. This provides another indication of the very limited nature of price and market reform.

had two distinct components: small and large privatizations and two types of vouchers. Red vouchers, with face value of Tugrik 1000 were for the privatization of the 1601 small businesses, all agricultural assets except for land and livestock, and other small assets. The total book value of small assets was Tugrik 9.4 billion. Blue vouchers, with face value Tugrik 7,000, were for the privatization of the 344 large enterprises with a book value of Tugrik 10.8 billion. Each citizen was entitled to three red and one blue voucher. Red vouchers were tradeable on secondary markets. Blue vouchers were not tradeable, but could be assigned twice to nominees.

The face values of the vouchers were only notional, reflecting the simply estimated historical cost of the assets to be privatized. The actual market value of the assets would depend on forward-looking projections. Because they were freely tradeable, the market value of red coupons could diverge from their face value even before privatization. Although blue vouchers had no secondary market, they would purchase shares that would subsequently become tradeable, at prices that would then reflect their "true" market value.

Assets in the small privatization category would be transferred to the private sector at auctions arranged by local authorities with guidelines set the Privatization Commission. The Commission was responsible for the historical cost valuation, and would inform the public by listing the assets to be auctioned in newspapers across the country. Only red vouchers could be used to bid; the highest bid would win and the Privatization Commission would issue the ownership certificate to the winner. However, the workers of those establishments had the first right to acquire them at the value determined by the Privatization Commission, using red coupons.

Privatization of large enterprises would also be by auction, for blue vouchers. Enterprises would develop privatization plans and obtain approval to implement them from the Privatization Commission. The Commission would value their fixed assets, audit the balance sheet, and issue shares on the basis of net assets. The enterprises would then be converted to joint stock companies. Ten percent of their shares would be granted to the employees, who would then be

able to participate in the auction on an equal basis with others.[9/] The remaining shares would be sold sequentially, in batches. Bidders would declare a price or price range for shares (in term of blue vouchers) and a time period during which their bid would remain valid. Brokers in each aimak throughout the country would collect declarations and phone in a bid to the stock market. The broker with the highest bid for the batch would register the owners and provide them with ownership certificates. Individuals who were unable to choose a company or did not understand the process could invest in mutual funds operated by the brokerage firms. However, the funds would not be allowed to control more than 20 percent of shares of a given company. After full privatization of a sufficient number of enterprises, secondary trading would begin. At that stage foreigners would be able to buy shares.

Like other voucher schemes, Mongolia's approach to privatization aims to transfer ownership quickly to a private sector which lacks wealth[10/] and is designed to be fair ex-ante but not ex-post. As noted by Kraay (1992) it reduces problems associated with "spontaneous privatization" (which damaged the credibility of early privatization in Eastern Europe) by subjecting each enterprises' privatization plans to the approval of the Privatization Commission which also reviews their assets. Although corporate governance might seem to be an issue since the Mongolian privatization program is a "diffuse shareholding" approach, creating suitable core investor groups or intermediaries like the Polish mutual funds in the Mongolian context would also be a problem. Because of employee preferences and an inclination to invest in local firms, many would probably become employee or community-owned, but there is no reason to assume that alternative core investor groups will not develop once secondary trading begins.

9/ According to some proposals, employees would also be able to buy shares for vouchers at the price fixed by the Commission: see Murrell et.al (1992).

10/ Space is inadequate to discuss the pros and cons of Mongolia's privatization program relative to other possible methods. See, for example, Kraay(1992), Milanovic(1991).

Another aspect of the program is that it assigns the valuation of enterprises to the stock market and minimizes the importance of bureaucratic valuation. The initial valuation of assets by the Privatization Commission was an accounting exercise to determine the number of coupons to be issued. It was not fixed or binding, since those values could change in the market according to supply and demand and without reservation prices for assets. The announcement effect of the initial price can, of course, be a real one in a society that does not have experience with market prices and has a long tradition of administratively determined prices. With respect to stock market valuation, some researchers (Tirole, 1991) argue that these markets are not likely to function properly in the transition period. However, somehow the enterprises need to be valued and, as pointed out by Kraay (1992), " if some kind of a stock market is not used to value enterprises for the privatization process, what organization will?".

One important caveat is needed however. It is not clear that privatization in the Mongolian context implies a swift transfer to private owners of the full set of rights normally assumed to accompany ownership. The creation of effective corporate governance is a three stage process - voucher issue, auctions, and shareholder consiolidation through secondary trading and, as described below, no company has gone through this entire process. Further, until price, market and foreign exchange liberalization are well advanced, such rights will remain circumscribed, and there are reports of theoretically privatized enterprises still receiving production instructions from state bodies.[11/] In addition, land that the enterprises are built upon would still be owned by the state. It is also possible that many enterprises will have negative equity unless the government writes off their debt to commercial banks. In this case, shareholders have control, at least in theory, but against the background of zero real ownership.

11/ Murrell et al (1992).

IV. Slowing the Headlong Rush: July 1991 - February 1992

The progress of reforms after July 1991 was slower than initially announced. Probably this was inevitable. At the beginning of 1991, the Soviet financial assistance that had averaged 30 percent of GDP between 1985 and 1990 totally dried up, causing the economy to deteriorate throughout the year. Following the dissolution of the CMEA, foreign trade declined dramatically. Exports fell from $ 795.8 million in 1989 to $ 444.8 million in 1990 and to $ 346.5 million in 1991. Likewise imports fell from $ 1.53 billion in 1989 to $ 782.8 million in 1990 and to $ 391.5 million in 1991. Relative to 1989, exports therefore fell by 56 percent and imports by a whopping 75 percent. Severe shortages of almost all inputs, as well as of consumer goods, resulted in lower output across all sectors and GDP fell by about 16.5 percent in 1991.

Modern Mongolia had never faced such a crisis. It forced the government to reduce the speed of reforms and increase administrative controls over the economy. In order to guarantee the supply of goods and agricultural produce for the domestic market, state orders were maintained. The government awarded a 25 percent rise in the minimum wage for state enterprise employees and introduced anti-monopoly legislation which set a framework for price controls applied to a large number of goods (and including those in the private sector). The growth of private activities also slowed, as continued state orders further constrained the availability of basic inputs to the private sector.

Privatization Despite some slowdown relative to earlier plans - it was now anticipated that it would take at least two years to privatize - Mongolia's progress in this area still was rapid compared with that in price and market reform. There was considerable progress, particularly in small scale privatization. By the beginning of February 1992, some 80 percent of all small enterprises were in private hands. A secondary market for red vouchers had developed and it seems that it valued vouchers at about 30 percent of their face value (Tugrik 300 per voucher or 900 per holder). Sales of red vouchers by a three-person family would have yielded Tugrik 2,700, about half of a year's average salary.

Another achievement was to prepare communications and other arrangements for large scale privatization. Seven brokerage houses were established, and special provisions were negotiated to dedicate Mongolia's very limited telephone facilities to the bidding process at specified times.[12/] Meanwhile, the Privatization Commission began to advertise through the press and the radio about upcoming privatization plans.

A high degree of market liberalization is usually considered as a necessary precondition for privatization to be effective.[13/] Especially in highly planned economies, however, some have argued that a considerable degree of private sector activity is a precondition for liberalized markets to work in a reasonably competitive manner.[14/] Indeed, these two arguments were reflected in policy debates during July 1991 - February 1992. The opposition called for rapid price liberalization so that privatization could go ahead quickly. Government argued that the private sector and market institutions needed to develop first. This also reflected the different constraints and incentives the government and opposition were facing, as well as greatly diverging points of view within the MPRP, in particular concerning the social reaction to price increases which were made more dramatic by the tighter external constraints on Mongolia. For the first time the MPRP was facing serious electoral competition and had to gain

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12/ According to some reports, this required side-payments to employees of the telephone company.

13/ Two arguments are usually made: (i) private activity may not improve efficiency if guided by the wrong set of relative prices, and (ii) privatization requires purchasers of enterprises to appreciate their potential in undistorted markets. In the Mongolian context, the latter argument is sometimes countered by the argument that the enterprises have cost the new owners nothing because of sale through vouchers. This abstracts from the trading of vouchers and shares for cash in the period before markets are fully reformed.

14/ In this respect Mongolia's program resembled the Soviet Shatalin 500 day program which also stressed privatization over price liberalization. One argument for this sequence in Shatalin's plan was to absorb a money overhang through sales of public assets and so to promote macro-stability needed for effective operation of liberalized markets. This argument cannot apply to Mongolia, as assets were sold for vouchers not for cash. More recently, the same concern about the tension between rapid macro and price policies versus slow supply-side measures has surfaced again in connection with Russia's reforms although the money overhang has been inflated away.

support to stay in power. Partly through their dealings with international agencies and analysts, the cabinet, including the prime minister and almost all of the ministers belonging to the MPRP which was managing the daily running of the country, was more aware of the size of the adjustment and the harshness of the necessary measures. Members felt that they had already implemented a credible reform package, and that new measures should be put in place gradually. More importantly, they viewed further radical reforms as politically unfeasible in the face of upcoming elections. The other small parties in the cabinet, as well as a sizeable portion of MPRP deputies in the parliament, argued that the reason for continued poor economic situation was insufficient reforms, and pressed for new measures. Given that opposition mainly consisted of parties advocating reform, they could not have argued otherwise, and their optimal strategy was to blame the government for not pressing ahead with reforms more rapidly. On the other hand, a hankering for the old socialist system remained in still other sections of the MPRP.

One particularly important development in October 1991 was a clear sign that the market economies and international organizations were prepared to support reforms through foreign assistance. Pledges of foreign aid (including IMF and World Bank loans) for $150 million, equivalent to about 15% of GDP, were made at the Tokyo meeting in May 1991. While a direct comparison is difficult, this might have been equivalent to half of the previous Soviet aid flow.

V. Picking Up the Pace: Reforms after February 1992

Pressured by the collapse in 1991 and by the opposition, Mongolia's government deepened the reforms in the first quarter of 1992. This move may also have reflected the fact that the flow of external aid and loans was conditional upon further reforms. In the beginning of March, with the exception of few goods, almost all prices were "liberalized"; however, they remained subject to negotiated price ceilings administered by local price commissions. A new constitution declared that "Mongolia shall have an economy based on different forms of property".

The most important event, however, was the opening of the Mongolian Stock Exchange on February 7, with the public offering of 3 large enterprises for vouchers. After its opening, the stock exchange continuously increased trading volume. By the beginning of June, the number of shares sold for blue coupons reached 468,400, with a value of more than Tugrik 100 million (Table 3 and Figures 1 and 2). Within four months there were 34 companies listed on the exchange and their privatization was moving as planned. As of June 2, 21 of these were fully privatized. The list included some prominent establishments such as Ulaanbaatar Hotel and Mongol Ceramics.

The provincial distribution of shares in the 21 privatized companies is shown in Table 4. About 49 percent of the shares of fully privatized companies were acquired by people living in Ulaanbaatar while 51 percent were sold to people in other areas. Although Ulaanbaatar's share exceeded its population proportion of 25 percent, this is still a noteable achievement considering Mongolia's poor communications and the vastness of the country. The simple process of auctioning off equities in successive blocks seems to have led to a convergence of bidding as indicated by Figure 3 for the Ulaanbaatar Hotel[15/], but data also suggest that the announcement effect from the initial book valuation may have played a role in settling the equilibrium price.

As expected, the use of vouchers also led to diffused share ownership. For example, in the case of Ulaanbaatar Hotel, 12,000 people obtained shares and the largest individual owner held only 0.07 percent of the total. (Table 5). The new owners had not yet become effective - as of June 1, a shareholder's meeting had yet to be held, the Board of Directors and the management of the Hotel having been elected by staff and employees prior to privatization.

15/ The Mongolian bidding process is far simpler than the Czech system which involves recontracting.

TABLE 3

STOCK TRADING VOLUME AND VALUE

Date	Number of Shares	Voucher Value
92.02.07	15,542	3,051,900
92.02.11	28,940	6,225,244
92.02.18	44,060	10,060,968
92.02.25	101,950	22,484,000
92.03.03	189,160	42,061,890
92.03.10	232,592	49,440,700
92.03.17	228,665	50,750,956
92.03.24	211,020	48,031,795
92.03.31	242,640	55,368,105
92.04.07	199,374	52,065,500
92.04.14	214,700	53,159,000
92.04.21	216,101	65,817,790
92.04.28	213,627	71,629,482
92.05.05	182,000	60,057,417
92.05.12	225,563	75,627,086
92.05.19	258,265	66,1~7,250
92.05.26	240,758	48,544,046
92.06.02	468,400	100,408,500
SUB TOTAL	3,509,357	880,921,629
TOTAL ESOP	942,960	94,296,000
TOTAL	4,452,317	975,217,629

Source: Mongolian Stock Exchange

Table 4

SPREAD OF SHARES BY PROVINCES
(Fully Privatized Companies)

Companies	MSH-001	UGZ-002	ULN-003	TLG-005	JLN-006	UBH-007	HRD-008	MNH-009	BNG-012	HEZ-010	MSV-011	AGA-012
Aimaks	1	2	3	4	5	6	7	8	9	10	11	12
1. Arhangai	1282	25804	5815	3537	310	35268	3039	14073	19223	1623	5039	3213
2. Nalaih	2564	64374	6529	1267	591	15550	403	5777	7697	846	284	4606
3. Bayan-Ulgi	4398	17720	17192	206	4080	14970	0	11311	19917	35	0	882
4. Zavhan	3962	7414	11191	1779	989	18783	435	20163	7846	98	18	2591
5. Gobi-Altai	1544	1948	6513	1616	48	20920	786	21172	10283	803	932	3576
6. Bayanhongor	1757	8950	5934	1311	262	14391	618	14434	6114	528	1184	1903
7. Huvsgul	806	9166	5779	1320	3935	9026	657	9628	9703	508	594	1161
8. Dundgobi	692	5199	7773	1135	1216	10260	1433	13894	6614	402	381	1761
9. Dornod	661	11425	9580	368	2279	4846	206	2641	6147	108	109	1648
10. Darhan	443	10916	9187	1524	427	6740	704	7345	7390	25	365	1514
11. Selenge	91	3181	6487	752	838	10269	356	5190	5731	643	36	2344
12. Uvs	468	7344	5822	2086	0	6075	642	9663	7037	8	517	1131
13. Uvuhangai	1882	7219	6586	544	502	9094	483	9080	4203	311	980	247
14. Drdenet	1205	10927	3919	359	920	6706	4187	1685	5957	30	70	396
15. Dornogobi	1465	5720	6308	3541	114	9013	1146	6627	3832	760	449	933
16. Hovd	1124	3453	2390	728	424	10001	145	9295	2306	39	66	745
17. Tuv	572	4962	4606	1145	507	6995	227	3327	3667	194	80	1315
18. Sukhbaatar	3669	3743	5471	1895	1870	7293	1012	6174	2458	101	149	317
19. Baganuur	276	1894	5616	647	0	4558	102	1068	3651	0	0	498
20. Henti	40	7108	5382	461	72	5526	369	4849	2310	463	199	451
21. Bulgan	610	2340	3555	1304	0	4765	773	9026	2138	283	894	884
22. Umnugobi	502	754	2088	942	136	4209	518	4691	3643	386	778	673
23. Ulaanbaatar	41602	54066	178574	34527	47664	169571	48039	109518	175238	25928	91876	53213
Total	71615	275627	335297	63000	67184	404829	66280	300631	323065	34122	105000	86302
Total of												
Traded	53835	252387	314157	55720	52374	357439	53050	270041	305635	31952	89440	78332
ESOP	17780	23240	21140	7280	14810	47390	13230	30590	17430	2170	15960	7980

(continued)

Source: Mongolian Stock Exchange.

Table 4 (continued)

SPREAD OF SHARES BY PROVINCES
(Fully Privitazied Companies)

Companies	URGL-014	UGU-015	USU-016	ATR-017	MZR-018	HIE-019	DRU-021	SOI-037	CSU-004	Total	% of Total	Share per Capita
Aimaks	13	14	15	16	17	18	19	20	21			
1. Arhangai	503	1740	1054	3742	2291	1192	5121	1868	3030	138767	5.04	6.25
2. Nalaih	333	1192	1162	929	636	421	3369	1336	1703	131569	4.78	1.96
3. Bayan-Ulgi	0	2012	112	4401	35	1445	5973	2222	21	106932	3.88	3.64
4. Zavhan	383	955	96	1799	2328	5579	16134	1314	367	104224	3.78	4.99
5. Gobi-Altai	308	1971	693	584	2449	39	4232	4859	849	86125	3.13	4.49
6. Bayanhongor	367	1291	483	2398	1353	1312	8405	2175	1025	76195	2.77	3.48
7. Huvsgul	416	3129	892	2484	2184	919	7217	867	918	74309	2.70	3.32
8. Dundgobi	116	1051	695	1496	1571	1849	7247	4723	1278	70786	2.57	4.19
9. Dornod	140	1487	606	636	1182	1778	12968	318	182	59275	2.15	1.54
10. Darhan	68	1830	581	2502	2281	1185	2624	455	1043	59149	2.15	.74
11. Selenge	20	1755	2	2410	741	710	8402	385	113	50462	1.83	2.43
12. Uvs	0	80	496	2340	786	1053	4020	771	681	51020	1.85	2.00
13. Uvurhangai	242	788	204	437	2096	512	4414	471	624	50919	1.85	3.09
14. Erdenet	183	1120	200	558	1149	1449	1810	5584	619	49033	1.78	1.01
15. Dornogobi	451	464	670	650	1801	213	2218	1800	6423	54598	1.98	5.25
16. Hovd	109	756	867	1165	1869	22	11438	418	313	47878	1.74	1.98
17. Tuv	135	551	203	2484	8518	289	2141	150	232	42300	1.54	2.32
18. Sukbaatar	66	604	56	1391	256	672	4168	412	655	42432	1.54	2.47
19. Baganuur	56	285	468	2810	492	226	817	15972	343	39779	1.44	2.26
20. Henti	203	663	526	600	845	1742	4295	1095	1055	32254	1.39	2.28
21. Bulgan	458	689	473	787	537	1624	2161	1681	227	35209	1.28	2.55
22. Umnugobi	226	247	542	147	818	309	4374	682	240	26905	.98	1.8
23. Ulaanbaatar	16900	50725	31362	67732	44489	28255	62864	7796	30731	1371110	48.80	4.32
Total	21683	75385	42443	104482	80707	53000	186412	57354	52672	2807090		
Total Traded	18463	44165	34043	82432	79657	42500	156662	49864	46442	1964992		
ESOP	3220	31220	8400	22050	1050	10500	29750	7490	6230	263940		

TABLE 5

TRADING DATA ON ULAANBAATAR HOTEL INC.'s SHARES
as of June 7, 1992

Total Issued : 335,297 shares
Esop : 21,140 shares (5.71 percent)
Total of Traded: 314,157 shares (84.85 percent)

Trading Day	Number of Shares	Voucher Value	Share Price Hi	Low	Average
February 2, 1992	9,582	2,395,500	250	250	250
February 11, 1992	22,640	5,345,244	252	210	231
February 18, 1992	12,115	3,150,351	350	251	270
February 25, 1992	40,000	10,200,000	261	250	254
March 3, 1992	45,000	11,490,000	259	250	254
March 10, 1992	75,000	18,970,000	259	250	252
March 17, 1992	65,000	16,400,000	259	250	252
March 24, 1992	45,000	11,445,000	255	252	254
TOTAL	314,157	79,396,095	-	-	-

SHAREHOLDER DATA

Total Issued: 335,297 shares
Total Number of Shareholders: 12,700
Esop: 302 people obtained shares through the ESOP scheme
Number of Shares per Shareholder: 26

The Names of People With the Highest Number of Shares and the Province They Reside in:

1. G. Damdin, 269 shares, Dornogobi Aimak
2. J. Narmandah, 245 shares, Ulaanbaatar
3. S. BAyraa, 243 shares, Dornogobi Aimak
4. N. Ouin, 207 shares, Ulaanbaatar
5. J. Purev, 200 shares, Dornogobi Aimak

Source: Mongolian Stock Exchange

Figure 1. Number of Shares Sold for Vouchers

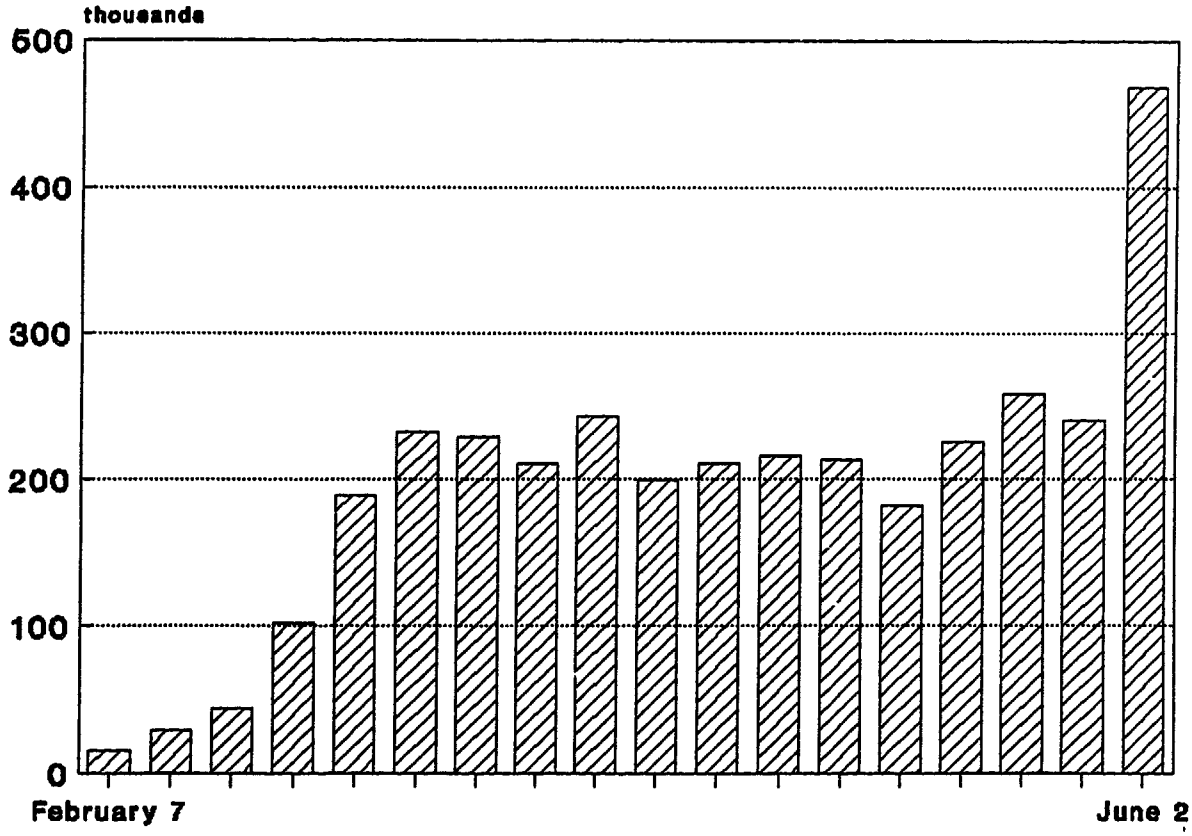


Figure 2. Number of Shares Sold for Vouchers

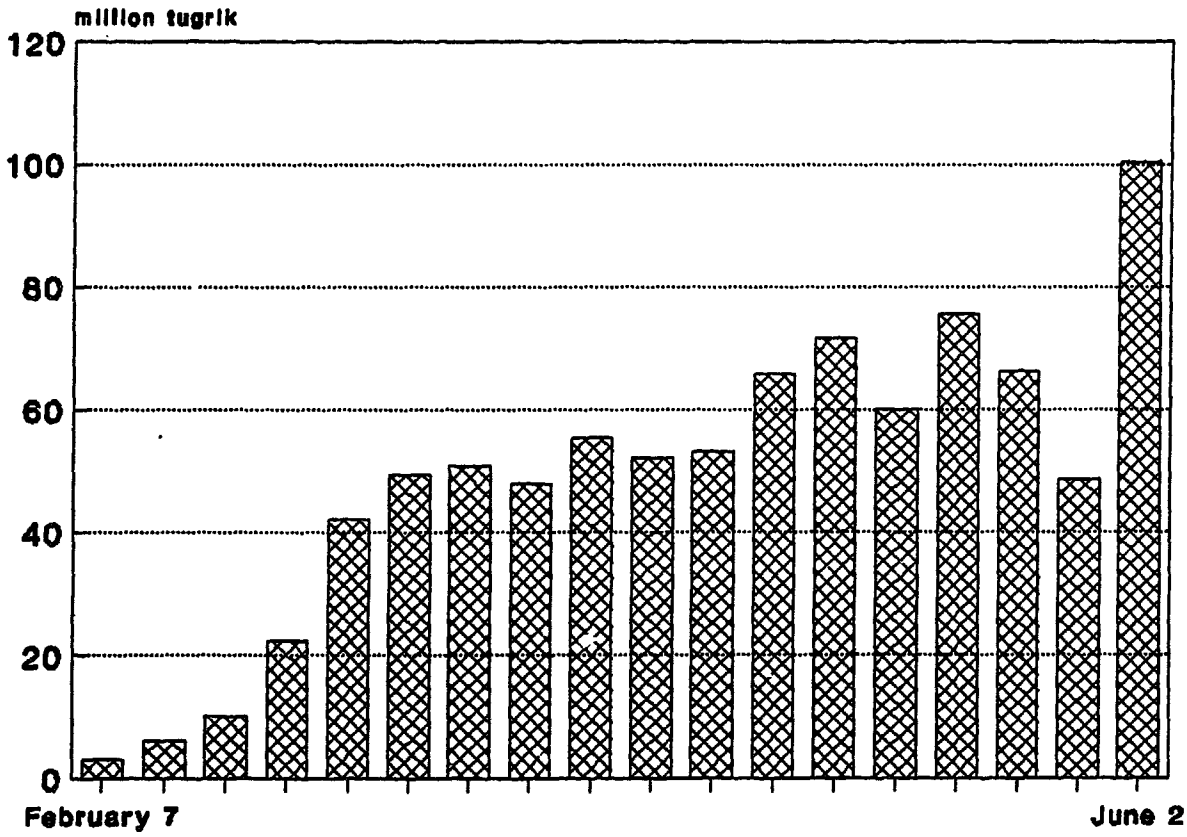
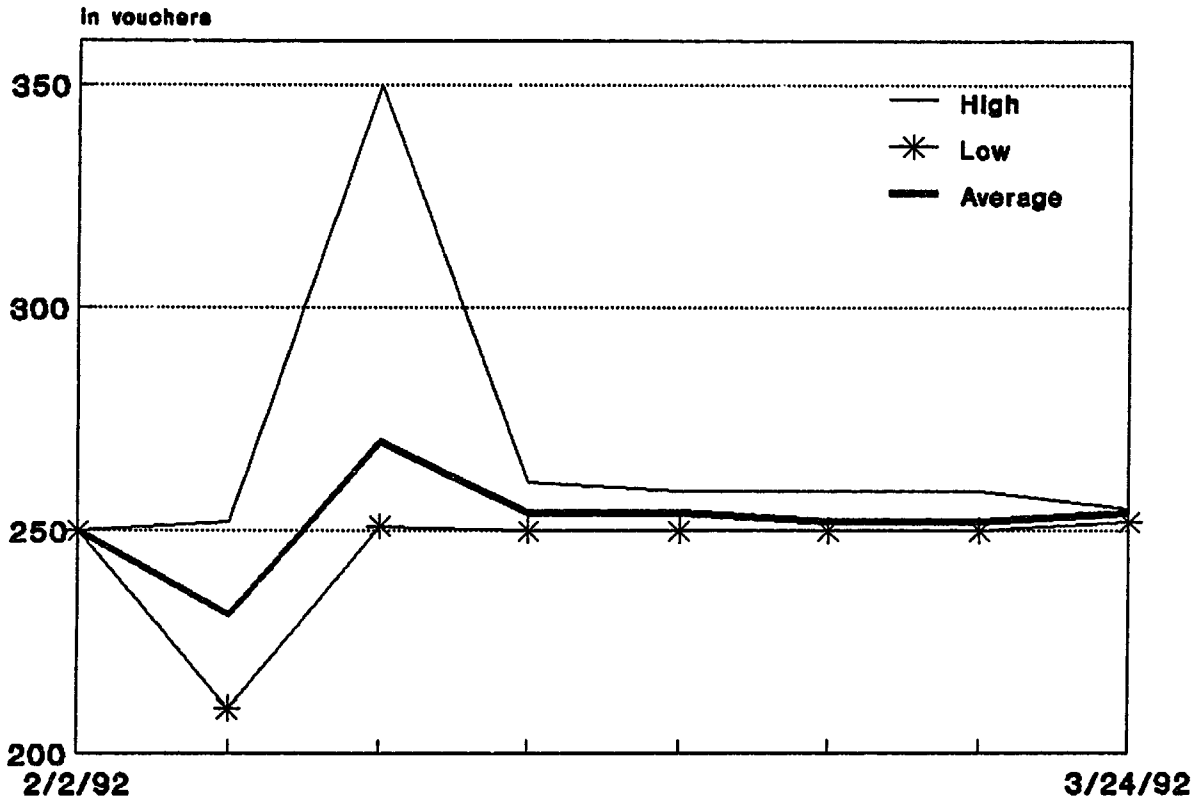


Figure 3. Share Price of Ulaanbaatar Hotel



VI. Fast or Slow? Some Considerations and the Case of Mongolia

Several factors have been advanced to account for various countries' propensities to adopt radical reform programs or to opt instead for a phased process of incremental reforms.

(i) Organizational and Institutional Capacity. The evolutionary approach towards system transformation[16/] stresses the need to organically develop the new out of the old. It points to the depth and pervasiveness of the changes required, in behavior, institutions and information flows in countries long isolated from the global economy. It emphasizes the costs (including social instability and the possible reversal of reform) of attempting to superimpose market structures too rapidly. The institutional capacity and market-related skill base of a reforming country may simply be too low for an abrupt transformation to the market.[17/]

On the other hand, the experience of reforming socialist countries suggests several factors that encourage the adoption of a radical transformation strategy:

ii) A political transition towards democracy and the rejection of Communism as an externally imposed system, coupled with concern to render reform irreversible before the process is hopelessly politicised weere factors spurring reform in much of Eastern Europe.

iii) A clear model for the transformed society (such as Western Europe) sets standards for reform and accelerates it;

iv) Severe macroeconomic imbalances or shocks force swift corrective measures and a choice between liberalizing markets versus returning to tighter controls. Shocks can be of domestic or external origin. In many cases they have been associated with the CMEA trade and payments shock which is estimated to have been directly responsible for about half of the 20% decline in Eastern Europe's

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16/ The evolutionary approach is put forward by Murrell (1990); see also Kornai (1992).

17/ To take one example, without an established accounting and auditing profession and lacking credit-appraisal capability, moving to a market-based financial system risks a serious solvency crisis. To take another, without tax administration capacity, relaxing direct government control over enterprise surpluses risks a fiscal crisis.

recorded GDP in 1990-91.[18/] Even though their CMEA shock was, to some degree, self-inflicted,[19/] when it came, the East European countries saw little alternative to an economic opening involving comprehensive price and trade liberalization and swift moves towards current convertibility. Non-CMEA trade already accounted for half of total trade in the more open of these countries, however.

These factors are relevant to Mongolia also, and its experience offers further insights into how they interact to speed or slow reforms.

(i) Organizational and Institutional Capacity. Market infrastructure and the institutional capacity for a market economy is particularly inadequate in Mongolia, especially relative to the more open of the East European countries. This has constrained the speed of reforms in many ways. Although the need for radical reform was widely appreciated early on, there was not a widespread awareness of what radical reform actually meant, even within the government. This limited the extent to which the actual reforms can be said to have been supported by a broad consensus, and almost surely contributed to inconsistencies between reform plans and their implementation.

(ii) Political Factors. The urge to transform the economy was initially led by a reform minded group within and outside of the MPRP who realized that with the collapse of the Soviet Union Mongolia would not be able to sustain its economy. As Soviet aid halved in 1990, the Mongolian government began to move away from the official ideology of the MPRP, which still continued official adherence to socialism through 1990 and 1991. In fact, a law passed in January 1991 banned political parties from operating in government organs and required all government officers, including the president and vice president, to drop their party

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18/ There is no rigorous way of disentangling the effects of the several factors that have contributed to Eastern Europe's economic contraction. This is a "best guess" estimate based on the outcome of a World Bank-IMF conference on the Macroeconomic Situation in Eastern Europe in July, 1992.

19/ Following political changes, East European countries moved as fast as possible to strengthen ties with the West and reduce those to the USSR. This included a rejection of the CMEA system, despite the high short-run costs.

affiliations. [20/] The reformers saw a quick switch to the market economy as the only alternative to communism. Indeed, was not Big Brother also shifting to the market?

Reform was also intertwined with a resurgence of nationalism and a desire to assert independence from the Soviet Union. The coalition government formed following the first multi-party elections sounded much more nationalistic than its predecessor, often suggesting that a new economic structure would minimise foreign dependency and reverse past "colonialism". This lent credibility to the reform movement, and helped to mobilize support. The combination of these factors - reduced Soviet assistance, ideological fragmentation of the MPRP, the insulation of technocrats in the government, and some degree of nationalist resurgence - allowed reformers to propose wideranging reform measures. But with very limited general understanding of the nature and implications of refcrm, it would be hard to argue that a broad national concensus existed on the specifics of the reform process.

A number of political factors appear to have slowed down the reform process, reative to its optimistic announcement. As reforms unfolded against the worsening macroeconomic scenario, the size of the needed adjustment, and the potential social disruption, particularly in urban areas, also became more apparent to reformers within the government. This implied the need to make some difficult choices concerning the pace of reform and the distribution of adjustment costs.[21/] At certain times, government therefore appeared to be reforming less vigorously than demanded by some sections of parliament and more slowly than required by its initial "big bang" approach. But with the upcoming elections in late June 1992, parliament was also delaying the implementation of certain reforms that would have an immediate impact on the welfare of the population. For example, a badly needed sales tax law to increase revenues, long

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20/ Heaton (1992).

21/ For example, Decree 355 still prohibits the export of raw materials with the objective of protecting the processing industry - even as price liberalization and privatization are in process.

ready in draft, is still waiting in the parliament. A degree of politicization of the reform process - inevitable within a democratic society - has therefore slowed reforms. Agricultural interests in parliament resisted the abolition of existing structures in the course of rural privatization - but at the same time lobbied against state orders for farm products.

International political considerations may also have played some role in the political calculus. Mongolia needs to retain the good offices of China, on which it is heavily dependent for transport routes and which could become a major trading partner.[22/] This, too, may influence the speed of the reforms or the estimates of the reformers as to how much social disruption would be tolerable without further political repercussions.

(iii) Was There A "Model"? Unlike Eastern Europe (which looked to Western Europe) and Southern China and Vietnam (which look to the Asian "tigers"), Mongolia's distinctive geographic situation and natural resource structure makes it far harder to identify a clear and plausible model for the transformed economy.

(iv) Macroeconomic Constraints: The Shrinking Resource Envelope Mongolia's moves towards comprehensive transformation were clearly spurred by the realization that the deteriorating Soviet system would not long be able to continue to support its economy. However, its geography and economic orientation made disengagement from the Soviet economy and integration into the global market economy very difficult. Some simple comparisons with Bulgaria, the most CMEA-dependent country in Eastern Europe, are illustrative. The terms of trade loss to Bulgaria from the end of the CMEA was estimated at 12% of GDP,[23/] while Mongolia's loss of Soviet aid alone was 30% of GDP. Thirty percent of Bulgaria's exports were for convertible currency, and these represented 15% of GDP. Mongolia's convertible currency exports were barely 1% of GDP. Bulgaria also did

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22/ August 1991 marked the first visit ever to Mongolia by China's head of state.

23/ Gelb and Gray, p38.

not face Mongolia's severe transport difficulties in increasing trade with the market economies.

Between 1988 and 1991 Mongolia's exports fell by nearly half in dollar terms, and the impact was aggravated by a sharp contraction in the financeable current account deficit, from over $1 billion to only $100 million. The effect was to cut imports to only 30% of their 1988 value, causing pervasive shortages and supply bottlenecks and further contracting production levels. Without allowing for terms of trade effects, a total cutoff of external funding would have forced imports back to less than one quarter of their 1988 level (from 54% of 1988 GDP to only 13%), less than fuel imports alone in 1988 and roughly equivalent to consumer goods imports in that year. Sharp output falls in all sectors in 1991, led by construction and industry, further reduced GDP which fell by 16.5 percent. By early 1992, urban unemployment had risen to about 20% of the labor force.

An output decline of 16.5 percent superimposed on an import cut equivalent to 40 percent of 1988 GDP, and allowing for a halving of commodity exports, would imply a cut in absorption of 47.5 percent of 1988 GDP. Almost all of this cut would have been felt in the urban economy, which, by 1990, supported 57% of the population. Lacking the transport and distribution systems to rapidly open new mines and reorient exports to world markets (and lacking also familiarity with these markets), Mongolia's considerable mineral wealth could not rapidly be redeployed. In the short-medium run, pastoral agriculture is therefore the main potential source of foreign exchange - but paradoxically, this traditional sector is the least import-dependent of all.

The impact of the cutoff of Soviet aid and trade disruption is simulated in Annex 1 using a small computable general equilibrium model, which seeks to strike a compensating balance between flexibility and rigidities in constraining the possibilities of adjustment. The model is calibrated to roughly conform to the structural characteristics of Mongolia's economy. The results suggest that the rural sector is reasonably well-insulated from external shocks, but that the urban sector contracts sharply, faced with a combination of supply and demand

shocks as essential inputs and urban incomes both fall. This induces catastrophic declines in welfare. One response scenario explored by the model is that of massive reverse migration to rural areas, but even this leaves welfare indicators at less than half their pre-shock levels. The model suggests that preventing a decline in welfare of more than 20% would require aid flows of about 15% of GDP, a level not too far out of line with pledges given at the 1991 Tokyo meeting.[24/]

Even accepting the proposition that macroeconomic shocks tend to accelerate reform, Mongolia's situation raises the question of how far this is likely to apply. Beyond a certain point, as the resource envelope tightens and squeezes away the margin above subsistence, the more difficult it will be to sustain an orderly pattern of reform. In the extreme, a tightening resource constraint could force a country like Mongolia (or, indeed, some of the states of the former Soviet Union) to shift from a planned socialist system to a rationed "wartime economy" despite intentions to shift to a market system. It may be significant that even well-established market economies tend to resort to controls rather than market-based adjustment when faced with national emergencies.[25/] In

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24/ As noted by a number of analysts, falling measured output in the process of socialist transformation does not necessarily imply falling real consumption levels and lower consumer welfare. Nevertheless, the structural characteristics of Mongolia's economy suggest that a sharp cut in external support and trade losses would result in a severe contraction of the urban economy and have major implications for income distribution, even with a successful radical reform program. Measures to strengthen and institutionalize the social safety net were already evident by 1990, with the creation of unemployment insurance and the initiation of rationing.

25/ In addition to the political factors, a number of economic arguments may be advanced in favor of responding to national emergencies (such as war or natural or other disasters) that threaten a dramatic cut in the availability of products for consumption and investment through direct interventions rather than using the price mechanism and indirect controls:

(i) Without knowing the shapes of demand and supply curves, it is difficult to set taxes, subsidies and transfers to achieve a desired reallocation of resources that is very different from the original one.

(ii) The outcome of any market equilibrium reflects a lengthy process of firms and consumers "feeling their way" towards the best allocation of resources. Faced with a radically new set of incentives, economic agents will need some time to rearrange their responses. Together with (i), this means that any price-guided adjustment to the emergency will be erratic and costly.

(iii) The particular set of price interventions and income transfers needed to achieve the desired outcome may not be enforceable unless agents are

(continued...)

addition, severely reduced resources could cause social unrest on a scale that prevented any coherent process of systemic reform.

Such a relationship between resources and transformation is shown in Figure 4. With no external shocks, reasonably good performance along path 1 blunts the impetus to change a socialist system in a radical, and perhaps risky, way. This corresponds perhaps to China after 1978. Path 2 represents a typical East European country - shocks contribute to a sense that the old system is breaking down, and impel rapid reform. Path 3 shows a highly constrained country like Mongolia, facing a far larger shock and with fewer avenues of short-term adjustment through market mechanisms. The difficulty facing such a country is how to implement a rational reform and liberalization process that will enable it to escape from a low-level crisis-rationed equilibrium without incurring unacceptable social costs. An important role for foreign aid -- and one well recognized by Mongolian officials -- is then to preserve the capacity to implement market reforms, and speed the transition to t0.

It is still too early to tell whether Mongolia's experience offers lessons to other transitional countries. Certainly the innovative privatization may do so, particularly for the smaller Asian republics of the former Soviet Union, but formally privatizing state property is really an easy part of reform. Making companies profitable and finding new jobs for dismissed workers is the real challenge. Mongolia's privatization has not yet led to restructuring, there have been no bankruptcies, and no layoffs. These may come in the future, once share trading concentrates ownership and provides an effective locus for corporate

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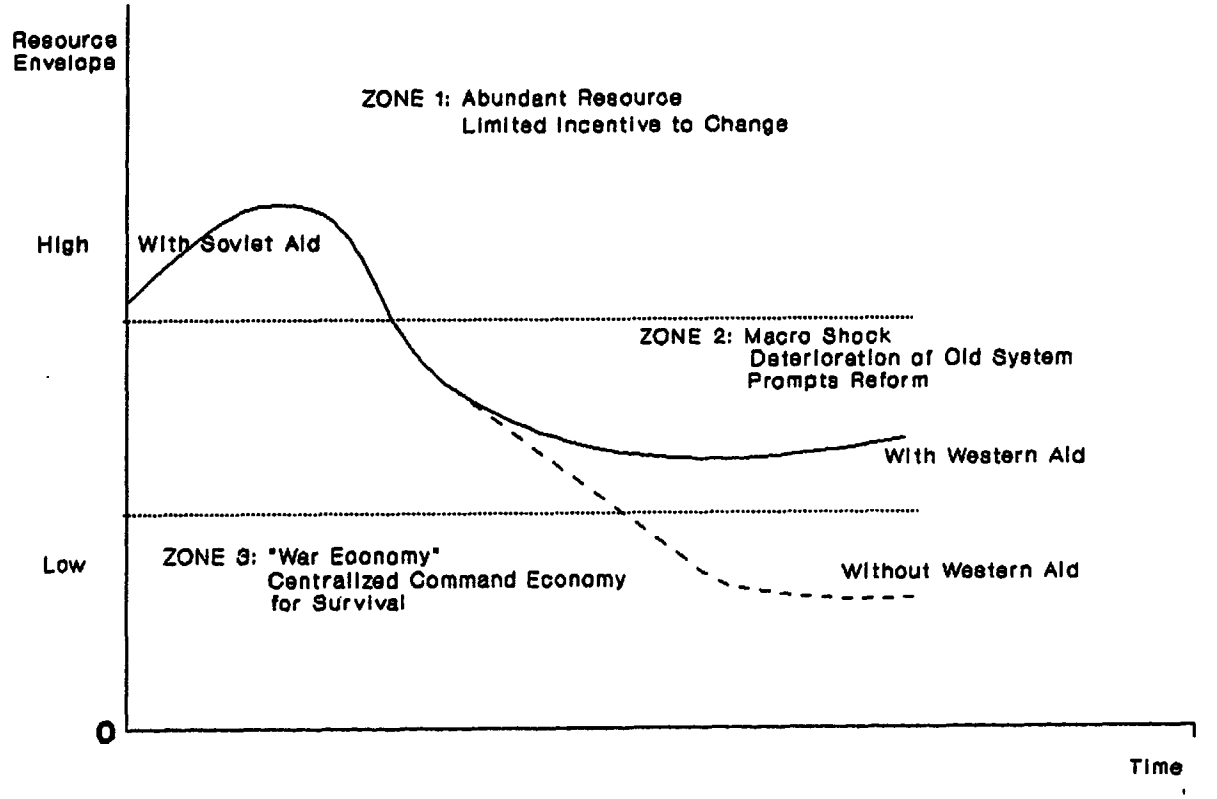
25/(...continued)
controlled directly, or it may involve high enforcement costs or confront severe informational problems. Transforming socialist countries face a special case of this problem: (iiia) It may not be possible to rapidly enforce financial discipline on the economic agents which is sufficient to rapidly achieve a normal market solution.

For all of these reasons, a market-based solution to an emergency may not be credible. This, in turn, will greatly increase the costs of trying to apply it.

For more discussion, see Bolton and Farrell (1990), Weitzman (1974),(1978), Yohe (1977), and Bennett (1989). We are indebted to Barry Ickes for drawing our attdention to this literature.

Figure 4. Resource Envelope and Reforms



governance. A possible lesson for other countries is that voucher schemes are a feasible method of transferring asset ownership rapidly, but that they are only a stage in the development of effective ownership. Without an adequate regulatory framework for capital markets (which Mongolia does not yet have), the trading of securities which is needed to concentrate ownership and provide an effective locus of shareholder control risks manipulations that could damage the credibility of the reform. Along with other countries in transition Mongolia has already experienced financial scandals, connected with losses from the trading of foreign exchange.

While small enterprises have been privatized almost completely, they are still under extensive constraints and instructions as to what activities to engage in, and without clear title to their land, investment in such firms will probably be limited.

Another lesson Mongolia may offer for reforming countries is that voters are liable to shy away from radical reformers when faced with growing shortages and a collapsing economy, even if the collapse is due to factors outside the government's control. In June, 1992, the MPRP was overwhelmingly returned in general elections, capturing 72 of 76 parliamentary seats. This does not mean the reversal of reforms. With the changes in the former USSR, a return to past is impossible. It probably means slower reforms, and greater attention to preserving as far as possible the social welfare systems and sense of economic security that characterised the previous system - for example, by delaying adjustment in the enterprise sector. Like Mongolia, some ex-Soviet republics face output losses and a drastic tightening of their resource envelopes. This could reduce their ability to liberalize and implement comprehensive reform programs, and strengthen impulses towards reimposing direct controls.

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Appendix 1

External Shocks in a Simple Model of a Mongolia-Like Economy

The model developed below focusses on three aspects of Mongolia's economy: (i) dualistic economic structure, (ii) widespread social protection and a tendency, characteristic of socialist countries, to equalize living standards, and (iii) the problem of adjusting to a cutoff of aid and trade disruption with CMEA partners.

Economic Dualism. Since its incorporation into the Soviet sphere of influence in the 1920s, the Mongolian economy has evolved into two broad sectors with very different characteristics. Traditional pastoral farming is largely self-sufficient, but the modern urban economy that now employs the bulk of the population is highly dependent on intermediate imports and capital goods. Imports were funded in the past by a combination of mineral exports (almost all to the USSR) and Soviet aid, flows of which have exceeded 30% of GDP for long periods. Intermediates, in particular fuels, accounted for over half of all imports, with the remainder split equally between capital and consumer products. Aid has supported a high rate of investment, partly in the form of turnkey projects.

Social Protection. At the same time, economic dualism has not translated into intense social dualism. Comprehensive health and education systems and social transfers received by a high proportion of the population have extended the benefits of the modern economy quite broadly. Although the monetary expenditures of those in the traditional sector have been less than those of urban residents, as a first approximation living standards can be assumed to have been broadly comparable in town and countryside. This tendency to equalize rural and urban living standards (even if incompletely) is also notable in other socialist countries.

CMEA Dependence. As a result of aid and exports to the USSR, Mongolia was a rather open economy as measured by import-GDP ratios; nevertheless this situation was almost totally dependent on the Soviet Union. Mongolia's economy was almost totally integrated into the CMEA system, with far fewer trade links outside it than the economies of Eastern Europe.[1] Transport and logistical barriers make a rapid reorientation of trade exceptionally difficult, at least in the short term. Further, the infrastructural requirements for further development of mineral deposits are great, and this limits the speed of their development. Mongolia's possible responses to an abrupt cutoff of Soviet aid and to the disruption of barter trading arrangements for its mineral products are therefore quite limited in the shorter term.

Structure of the Model. The model in Table A1 is intended to simulate the consequences of an aid cutoff and trade disruption in the short-medium run -- say one to three years, before radical changes in production capacity are possible but too long to rely on accumulated stocks or reserves. Rural output, which is in reality the outcome of complex decisions concerning trading off current sales versus a buildup of herds, is simply specified exogenously in the model. Labor is the only rural factor of production. Urban output is modelled as a CES function of imported intermediates and domestic value added. The CES elasticity of substitution is assumed to be 0.33. Urban domestic value-added is represented by labor input, since simulations typically involve underutilization of domestic capital. The model abstracts from domestic input-output relationships. Urban and rural labor forces are given, with the possibility of intersectoral migration allowed in some simulations. A small part of rural output is exported in the base period, but urban output goes to satisfy consumption and investment needs. Rural incomes (assumed to be received by rural households) are set by the value of rural output. Urban incomes are the value of urban gross output less the cost of imported inputs plus a transfer from abroad which represents the sum of Soviet aid and income from mineral exports which is taken as exogenous. For simplicity,

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[1] Mongolia's exports to market economies were about 1% of GDP; for comparison, they were 15% of GDP in Bulgaria, a "closed" East European country.

mining is treated as a pure rent and this is separated from rural and urban output. In some simulations a lump-sum tax/transfer may be effected between the rural and urban sectors.

Rural and urban demands are modelled simply as derived from Cobb-Douglas utility functions over rural and urban goods in the two sectors -- for simplicity the model abstracts from final consumer imports. Expressed on a per head basis, these utility functions are used to evaluate the welfare implications of model simulations. Investment demand is treated as a pre-specified quantity of the urban good, which is deducted from total urban demand for the urban good when deriving the utility of urban households.[2] The model is static, and also does not distinguish government and private sectors, and so abstracts from all fiscal issues of adjustment.

The model closes, or balances, through the adjustment of the price of the urban good (and of the price of the rural good if foreign demand is not assumed to be infinitely elastic). Urban consumption is a residual, after taking investment from urban output. The imported intermediate good is the numeraire, and in the base simulation all prices are defined to be unity. The equations of the model are shown, together with indicators of base structure, which is calibrated to (roughly) approximate Mongolia before the aid and trade shocks.

This simple specification attempts to strike a compensating balance between flexibility and rigidity in constraining the possibilities of adjustment. On the one hand, experience to date with socialist transformation suggests a good deal of capacity to adjust through a variety of structural and productivity gains not easily captured in models of the computable general equilibrium type -- for example, through the rapid growth of small businesses and improvements in the distribution and service sectors following the liberalization of markets. On the other hand, the model allows rather flexible substitution in demand, and possibly also in urban production considering the small size of Mongolia's economy and the

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[2] For simplicity, investment demand is therefore included in total urban demand as derived from the utility function, but the level of investment goods is deducted from total urban demand to obtain the level of urban consumers' welfare.

very high complementarity between key imported inputs (especially fuels) and domestic factors of production.

Another noteworthy feature of the model is its calibration to ensure equal levels of urban and rural welfare in the base period. This reflects the a priori judgment that the costs imposed on the rural sector due to the generally urban-centered Marxist development strategy have been offset by the access to urban-based services -- including health, education, family allowances, and so on -- that would not otherwise have been available to rural households. To put this another way, it is assumed that the distribution of Mongolia's population has equilibrated, through urbanization, to the urban development and modernization permitted by Soviet aid and mineral exports over a long period.

Aid Cutoff and Export Disruption. The first set of simulations explores the impact of drastic cuts in import capacity caused by the ending of Soviet assistance (equivalent to 31.5% of nonmining GDP in the base period)[3] plus a halving of mining export revenues (21% of nonmining GDP in the base) through disruption. Table A2 shows first the effect of an aid cut alone, then that of the cut plus export disruption, under three assumptions on the demand for nonmining exports: very elastic, somewhat elastic, and unit elastic (the elasticity of demand for nonmining exports is respectively 100, 2 and 1). An investment level of half that specified in the base period, or 21% of base nonmining GDP, is assumed. Three model outcomes are shown: rural welfare, urban welfare and non-mining GDP at base-year prices, all relative to their base-year levels. It should be stressed that the GDP measure reported from the model always excludes export mining, which is treated as a pure rent producing sector.

Faced with a major supply shock to the urban sector with which they trade, the welfare of rural households depends mainly on how easily agricultural exports can be expanded. Nevertheless, the rural sector is well-cushioned, with welfare

[3] To avoid the impact of exogenous changes in mineral exports, all ratios are expressed relative to GDP excluding mining rent. In the base year of the model, mining rent is equivalent to 21% of nonmining GDP.

levels remaining at over 70% of their base levels.[4] The same cannot be said for urban households, who see a catastrophic fall in welfare as the simulated environment deteriorates. The maximum fall in nonmining GDP, of 30%, is of course concentrated in the urban economy.[5] The model also shows the importance of agricultural exports for the urban sector, as increased foreign exchange makes possible more intermediate imports and sustains urban production.

What is the effect of introducing open urban unemployment into the adjustment scenario? The simulations reported in the lower part of Table A2 place 20% of the urban labor force into that category. This causes output to fall further and urban welfare levels to decline appreciably. As would be expected, the effect is smaller when urban output is already highly import constrained.

Reverse Migration. The emergence of large rural-urban income differentials would be expected to induce reverse migration to rural areas, particularly as about half of all urban households are estimated (by Mongolian officials) to retain close ties to the rural economy. Table A3 simulates a reverse migration scenario (or a related possibility of income sharing) to re-equalize urban and rural welfare assuming an aid cutoff and mining export disruption, with investment again halved from base levels. Forty percent of the urban population returns to rural areas, raising the population in the traditional sector by 80% and reversing decades of urbanization. This social response still leaves welfare at below half of base-year levels.

Another response to the sharp urban income loss could be to tax the rural sector to equalize welfare in the two sectors. Table A3 shows the necessary rural tax rate to be over 50%. The capacity to collect such a high tax, and the real-world consequences for incentives of trying to do so, are issues not

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[4] Because the shocks are on the supply side, and are matched by falling urban demand, simulations typically involve only fairly small changes in the relative price of the urban good. Real depreciation is associated with a terms of trade loss to rural exporters who, faced with falling urban demand, try to raise exports with foreign demand possibly inelastic.

[5] In reality, the rural sector is of course also dependent on some urban intermediate inputs and hence on imports, but the model abstracts from this.

considered in the model, where the tax/transfer is simply modelled as costless and lump-sum.

Foreign Aid to Facilitate Transition. Faced with income losses of the magnitudes indicated, a country might be expected to encounter extreme difficulty in implementing a consistent reform program. Table A4 shows the use of the model to derive target levels of "Western" aid[6] to sustain an orderly, comprehensive, transition to a private market economy. It is assumed (quite arbitrarily) that declines in living standards of 20% are sustainable through the transition without severe social disruption, so that the income threshold is 80% of the base level. It is also assumed that investment should be sustained at half the pre-shock level through the transition.

Rural welfare remains always above the 80% threshold, declining, of course, as the possibilities of exporting are constrained. The range of aid levels suggested by the model is 13.8% - 14.6% of pre-shock nonmining GDP. However, this does not take into account the costs imposed by rigidities in the internal adjustment process. When a 20% urban unemployment rate is factored in, the aid level rises to around 17% of nonmining GDP. These levels seem to be not too far out of line with the pledges of assistance made to Mongolia at the 1991 Tokyo meeting.[7][8]

The small response of the target aid level to increases in the export possibilities for rural products seems counterintuitive, but this is because the simulations in Table A4 include no mechanism for redistributing incomes between

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[6] For present purposes, Japan and other Eastern market economies are included in the term "Western".

[7] The difficulty of converting GDP measured in domestic currency into foreign currency for socialist countries makes it difficult to express aid flows relative to GDP. However, assuming that a reasonable level for GDP per head, excluding the export mining sector (which is taken as pure rent in the model) were $500 per head, GDP for the country of 2 million would be about $1 billion, so that pledges of $150 million would correspond to an aid level of 15% in the model.

[8] In the model, (and plausibly in the real world) the marginal value of foreign exchange rises as the supply is cut back, so that the marginal value of aid falls as the amount is increased. Assuming some curvature of the utility functions (so that the marginal value of consumption falls with its overall level) would of course accentuate this.

rural and urban sectors (migration or extended families) and also does not take into account possible gains in export processing. A vigorous program of export expansion could therefore permit a progressive decrease in aid levels over time, even considering the initially small export base.

Table A1: Model Equations and Base Values

Output

Rural $X_r = \bar{X}_r$

Urban $X_u = k\ [\alpha(L_u(1-UN))^{-2} + (1-\alpha)M^{-2}]^{-1/2}$

Labor

Rural $L_r = \bar{L}_r - MIG$

Urban $L_u = \bar{L}_u + MIG$

Income

Rural $Y_r = p_r X_r - YT$

Urban $Y_u = p_u X_u - p_m M + T + YT$

Demand

Rural $C_{rr} = \theta Y_r/p_r,\ C_{ru} = (1-\theta)Y_r/p_u$

Urban $C_{ur} = \phi\ Y_u/p_r,\ C_{uu} = (1-\phi)Y_u/p_u$

Balances

$X_r = C_{rr} + C_{ur} + E_r$

$X_u = C_{ru} + C_{uu}$

$p_r E_r + T = p_m M$

Exports

$E_r = a.p_r^{ee}$

Numeraire $p_m = 1$

Welfare

Rural $U_r = (C_{rr}^{\theta}\ C_{ru}^{1-\theta})/L_r$

Urban $U_u = (C_{ur}^{\phi}\ (C_{uu}-I)^{1-\phi})/L_u$

Parameters - Base:

$\bar{X}_r = 40$; $k = 2.828$; $d = 3.305 \times 10^{-4}$; $MIG = 0$; $\bar{L}_r = 0.475$; $L_u = 1$; $YT = 0$; $T = 50$; Soviet Aid = 30; mining exports = 20; $\theta = 1/2$; $\phi = 1/7$; $a = 5$; $ee = -100$ or -2 or -1; $I = 40$.

Base Values:

$p_u = p_r = p_m = 1$; $X_u = 110$; $M = 55$; non-mining GDP = 95; $Y_r = 40$; $Y_u = 105$; $E_r = 5$; $Ur = U_u = 42.099$.

Table A2: Responses to External Shocks

SHOCK[1]	BASE	SHOCK 1			SHOCK 2		
Soviet Aid/Base GDP*(%)[2]	31.5%	0			0		
Mining Exports/GDP*(%)	21.0%	21.0%			10.5%		
Non-mining Export Demand Elasticity		-100	-2	-1	-100	-2	-1
Urban Unemployment = 0							
RESPONSE[2]							
Rural Welfare	100	99.5	86.7	81.6	99.3	80.7	70.0
Urban Welfare	100	70.1	66.5	65.0	41.4	31.4	25.0
GDP*	100	89.5	85.3	83.6	81.1	73.3	69.0
Urban Unemployment = 20%							
RESPONSE[2]							
Rural Welfare	100	85.6			80.4		
Urban Welfare	100	61.5			29.6		
GDP*	100	81.9			72.2		

1. GDP* is GDP excluding mining exports.
2. Investment is halved to 21% of Base GDP* in response to shocks.

Table A3: Reverse Migration and Rural Taxation

SHOCK

Soviet Aid = 0, Mining Exports/GDP*[1] = 10.5%

Elasticity of non-mining export demand = -2

RESPONSE[2]

Migration/urban labor (percent)	40.2
Migration/rural labor (percent)	85.0
Rural = Urban welfare (Base = 100)	43.1
Rate of rural taxation to equalize welfare (percent)	56.0

1. GDP* is GDP excluding mining exports.
2. Investment is halved to 21% of Base GDP*.

Table A4: Cushioning Adjustment through Aid

SHOCK[1]			
Soviet Aid = 0, Mining Exports/Base GDP* = 10.5%			
Non-mining Export Demand Elasticity	-100	-2	-1
OUTCOME[2] (minimum welfare threshold = 80)			
Urban Unemployment = 0			
Urban Welfare	80.0	80.0	80.0
Rural Welfare	99.5	88.3	85.5
Western Aid/Base GDP* (percent)	13.8	14.3	14.6
OUTCOME			
Urban unemployment = 20%			
Urban Welfare		80	
Rural Welfare		88.4	
Western Aid/Base GDP* (percent)		17.4	

1. GDP* is GDP excluding mining exports.
2. Investment is halved to 21.0% of Base GDP*.

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